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EX PARTE

December 20, 2004

W. Kenneth Ferree
Chief, Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CS Docket No. 97-80 (2006 Separate Security Requirement)

Dear Mr. Ferree:

NCTA has previously presented detailed and compelling reasons why the Commission should eliminate the July 2006 prohibition on the deployment by cable operators of integrated set-top boxes. Recent ex parte submissions by the Consumer Electronics Association ("CEA") and others suggest that additional explanation may be helpful on several matters relating to this Separate Security Requirement.[1]

The cable industry is fully honoring its commitment to support the retail availability of navigation devices. The CE filings assert that the interoperability issues that have occurred with the introduction of CableCARDs would be "unlikely to have arisen" if the Separate Security Requirement had been in effect. This reflects a mistaken view of cable operators' incentives, of the issues associated with the introduction of new technology, and of cable operators' performance in supporting the introduction of CableCARDs.

Today's CableCARDs (which are distinctly different from the first-generation PODs introduced in 1998) are new products using sophisticated new technology. The DTV "Hosts," with which they operate, are also new products using new technology – both hardware and software – that has just come off the CE manufacturers' drawing board. Yet, within only a few months, the number of certified, verified, and self-verified CableCARD-enabled products ("Unidirectional Digital Cable Ready Products" or "UDCPs") has grown to over 140 devices from 11 manufacturers. The number of CableCARDs deployed in the field in working UDCPs has increased from zero to approximately 10,000 (with the number rapidly escalating every week).

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[1] *See* Letter from Robert S. Schwartz, Counsel for CEA, to Marlene H. Dortch, CS Docket No. 97-80, December1, 2004; Letter from Julie M. Kearney, Senior Director, Regulatory Affairs, CEA, CS Docket No. 97-80, November 23, 2004.

As with any new technology, all parties expected some start-up problems (as has occurred with the introduction of virtually every other new cable product). On the CE equipment side, products have shipped with a number of problems including firmware needing updates in the home, odd arrangements of inputs, soldering problems making it difficult to insert the card, and other problems. To resolve problems quickly for cable customers, scores of cable engineering personnel, including cable field technicians and corporate engineers, have devoted time troubleshooting and fixing these first generation UDCPs as they appeared in consumer homes. On the CableCARD side, there has also been the occasional need for a firmware download to a CableCARD, or the occasional error by a customer service representative. But these are problems that are normal and are routinely corrected as they arise. Cable faces the same issues when it rolls out any new technology, whether it is the first DOCSIS modem, the first digital boxes, or the first DVR set-top box. The start-up problems are normal, are being corrected, and the market is developing rapidly.

The kinds of problems that have arisen would not be avoided if all manufacturers' equipment, including that supplied by cable's vendors, connected through CableCARDs. In fact, the roll-out might be faring worse. This is because some of the problems that occur with equipment from third-party vendors would be avoided by cable's traditional vendors because they would have the same people bringing the same interpretation of a specification to the design of both the CableCARD and the set-top box, whereas a CE company following its own proprietary implementation of the specification may make different judgments. Cable's vendors have contracts directly with their cable operator customers which require the vendors to resolve any issues with their deployed boxes. That will obviously not be the case with the suppliers of "Host" devices to be sold at retail. Moreover, even cable's vendors have encountered some technical difficulties as they introduce new features to leased set-top boxes. The point is that problems are to be expected and routinely occur when complex new technologies are introduced, that the problems vary with each device, and that precluding the deployment of integrated set-top boxes cannot and will not prevent these problems from arising in retail UDCPs.[2]

Cable operators have strong economic incentives to support the retail availability of navigation devices. CE acknowledges "the cable industry's good faith efforts" but suggests these conflict with the industry's own "market imperatives." There is no such conflict. A cable presence in retail is crucial in today's competitive market, and the cable industry's recognition of

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2 Certainly it is not the case that the Separate Security Requirement is needed, as CE suggests, to protect CE manufacturers against the risk of an "unreliable" interface. Ten thousand DTVs with installed CableCARDs show that the interface is reliable. Individual DTV manufacturers are highly competitive with one another, and implement their features in non-standardized, unique ways. Every DTV therefore ships with subtleties of features, firmware, and software that are "self-verified" by the DTV manufacturer and create their own unique sets of roll-out issues that need to be overcome. But the CableCARD and the interface are clearly "working," because the cards are working in thousands of sets made by a variety of manufacturers. Adding a CableCARD slot to a cable operator's two-way leased set-top box, 18 months from now, does nothing to avoid the resulting start-up one-way device problems. At best, it would add a new set of problems that would consume cable and current vendor resources that would otherwise be spent in innovation.

that imperative is reflected in cable's growing presence in consumer electronics retail outlets across America and in the high-level discussions (and emerging commercial relationships) that have taken place between top cable officials and Korean and Japanese CE manufacturers.

Moreover, even despite the inherent tension between the one-way limitation of today's CableCARD-enabled devices, and the desire of cable operators to market interactive services to consumers (a tension that was expected and agreed to in taking the first step of a one-way Plug and Play Agreement), cable operators have every market incentive to make the CableCARD experience work for our consumers. And we are, given the 10,000 cards in the market today. Cable competes in a vigorously contested service marketplace against two powerful DBS competitors and must fight hard to attract and retain every customer it can. This requires that it do everything possible to make the experience a successful one for consumers who choose CableCARD-enabled devices.

The Separate Security Requirement will impose significant added costs on consumers, costs that will increase the prices paid by every consumer who would have preferred to obtain an integrated set-top box. Although CE claims that "the acquisition costs of CableCARDs would by now have plummeted" had the Separate Security Requirement been in effect, the truth is otherwise.

The costs associated with the Separate Security Requirement will remain high because they include much more than merely the manufacturer's "bill of materials" for hardware alone. The manufacturer's cost to the cable operator – and ultimately to the cable customer – also covers licensing fees for intellectual property, warranties and indemnification and the underlying security purchased with the CableCARD. Moreover, the situation that would be created by forcing operators' leased boxes to use CableCARDs would not resemble a typical competitive market; rather, it would entail governmental coercion of cable operators to purchase enormous volumes of CableCARDs from a small subset of manufacturers in a context that would create no new downward pressure on pricing.[3]

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[3] CE suggests – without the slightest evidence – that in the absence of the Separate Security Requirement cable's vendors enjoy "carte-blanche" to charge cable operators "premium" prices for CableCARDs. Cable operators must fight vigorously for every cost savings possible, because MSOs operate against formidable DBS competitors who have no CableCARD costs and are trying to out-compete cable in every way possible. CE also suggests that cable operators have "sought to discourage" the use of CableCARD-enabled devices. As we have demonstrated elsewhere, when operators provide consumers with information about the capabilities of CableCARD-enabled televisions, they are doing exactly what the Commission asked them – and CE manufacturers and retailers – to do: inform consumers about the "functionalities" of this new equipment. *See Plug and Play Order*, 18 FCC Rcd 20885, 20904 (¶42)(2003)("We strongly believe it is incumbent upon the consumer electronics industry to collaborate with both their retail partners and the cable industry to develop consumer awareness campaigns about unidirectional digital cable televisions and their functionalities, particularly with regard to the need for set-top boxes in order to receive interactive services."); Letter from Neal Goldberg to Johanna Mikes Shelton, CS Docket No. 97-80; PP Docket No. 00-67, November 23, 2004.

CE interests continue to downplay the significant cost of CableCARDs.[4] Whether the costs of the CableCARD plus "Host" side interface adds another $70 or, as Intel hypothesizes, between $15 and $19 "in quantity" plus the additional "Host" side costs (which Intel ignores) makes little difference.[5] Whichever set of costs is assumed, implementation of the Separate Security Requirement would (in addition to foreclosing the consumer from choosing an integrated box) add *hundreds of millions of dollars* in additional equipment costs onto the cable consumer for no additional benefit.[6] The Commission should bear in mind that those costs are *not* faced by cable's DBS competitors – for whom these same CE manufacturers serve as OEM and retail CPE suppliers.

Notably, these increased costs adversely affect cable operators and their customers, but they do not affect CE manufacturers or retailers. With a leased set-top box, the up-front investment rests with the cable operator, who leases the box at a government-prescribed price, and must replace it when the customer tires of its features and wants the next new feature – HD, or a DVR, or more storage capacity. Given these facts, adding to the lease cost of the set-top does little or nothing to influence that customer's decision whether to lease the set-top box or buy a CableCARD-enabled DTV or DVR. It merely imposes an unnecessary price increase on all cable customers, as even a proponent of the Separate Security Requirement has recognized.

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4 *See* Letter to Marlene H. Dortch, from Jeffrey T. Lawrence, Director Content Policy, Intel Corporation, CS Docket No. 97-80, November 17, 2004. As we have demonstrated, the cost of a CableCARD-enabled box is many times more than the $19 Intel posits. *See NCTA Cost Report*, CS Docket No. 97-80, August 2, 2002 (Demonstrating POD-Host combination would cost cable operator $72 - $93 more than integrated set-top boxes with same functionality resulting in $1.99 - $2.98 price increase for consumer for each set-top box in home); Letter from Neal Goldberg to W. Kenneth Ferree, January 7, 2003 (Rebutting response submitted by CERC).

5 Intel is not a manufacturer of CableCARDs and provides no basis for "affirm[ing]" CE's estimate of their costs. Intel's forecasts are far from perfect. See John Markoff, *The Disco Ball of Failed Hopes and Other Tales From Inside Intel*, The New York Times, Nov. 29, 2004, at C1 ("Intel's top executives believed that by applying the same manufacturing process techniques that have gained it dominance in microprocessors, the company would succeed where others have failed. The engineer described sitting in meetings where the company's simulation models showed that 95 percent of the chips from each test wafer would be usable, while the actual yields were closer to 4 percent. High manufacturing yields are the holy grail of the chip-making industry but Intel has been unable to translate its traditional prowess to the new technology. That gap meant that Intel was unable to drive the cost of the chips down in the same way it has traditionally lowered the costs of its microprocessors.")

6 Even using Intel's projected cost savings for the CableCARD, *and not including any additional cost for the Host interface*, an additional $1.2 billion would be added to consumer costs in the short-term alone. There were 38.4 million digital set-top boxes deployed as of year-end 2004. Kagan World Media, Broadband Technology, Sept. 14, 2004 at 1. While the Separate Security Requirement only requires deploying CableCARD-enabled boxes to new customers as of July 1, 2006, when existing integrated boxes are replaced, they would have to be replaced by CableCARD-enabled boxes. According to Kagan, there will be over 48.3 million set-top boxes deployed by year-end 2006, and 63.7 million digital set-top boxes deployed by year-end 2008. The cost to consumers for the extra costs for just the CableCARD-enabled leased set-top boxes that will be deployed by 2008 – either as newly-deployed or their eventual replacements – would be $1.2 billion (63.7 million x $19) *without* taking into account the additional costs for the Host. And as the dramatic growth in digital set-top box deployment continues, the additional cost to consumers will increase as well.

In a series of *ex parte* filings,[7] TiVo concedes that cable operators' provision of rate-regulated integrated set-top boxes provides the consumer with choice ("integrated" vs. "separate security"; "lease" vs. "buy") at less cost than CableCARD-enabled devices. As a result, TiVo argues, the Commission should impose the Separate Security Requirement as scheduled so *all cable customers* must bear the added cost of a CableCARD-enabled set-top box with a concomitant reduction in choice.

As TiVo puts it:

> Cable operators already enjoy a significant competitive advantage over consumer electronics companies in providing navigation devices to consumers, given their ongoing relationship with the consumer and *their ability to lease set-top boxes for a low monthly fee, rather than requiring consumers pay hundreds of dollars to purchase a set-top box.* The Commission should not allow this substantial, inherent advantage of cable operators to be compounded by the further considerable advantage that would result from any extension or elimination of the [Separate Security Requirement]. *If cable operators do not have to use CableCards in their devices, it will be nearly impossible for consumer electronics companies to overcome their competitive disadvantage in terms of cost and convenience.*
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> *The "buy" versus "lease" situation is difficult enough to overcome. If added to that disadvantage is the additional cost and inconvenience of having the cable operator "install" a CableCard and then having to pay an extra monthly fee to lease the CableCard, most, if not all, cable customers will choose the product supplied by the cable operator.* Similarly, any differences in functionality or programming that the competitive products are unable to offer will further exacerbate the competitive imbalance. In short, every way in which a competitive product must differ from cable operator-provided products impedes competition.[8]

TiVo's message is clear. Operator-supplied integrated set-top boxes offer consumers a choice at a rate-regulated, low, monthly price. To make comparable retail-supplied devices competitive, the Commission should impose on all cable customers a requirement that they can only obtain a set-top box from their operator that has separate security and that they must pay whatever additional costs such as box *and* the CableCARD entail, whether or not it provides any added functionality. Given often expressed governmental concerns about cable pricing, it is incredible that TiVo and other CE manufacturers would suggest that consumer interests would be served by adding significant costs without benefits to cable set-top boxes.

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[7] *See e.g.*, Letter from Henry Goldberg, Attorney for TiVo Inc., to Marlene H. Dortch, CS Docket No. 97-80; PP Docket No. 00-67, filed October 21, 2004.

[8] *Id.* at Attachment (Reply Comments of TiVo, MB Docket No. 04-227, August 29, 2004) at 1-2 (emphasis added).

Nor does imposing a CableCARD requirement on leased set-top boxes create some long-term consumer economies. CE projects that there will be "savings" on the Host side as more manufacturers gain more experience. But those "savings" are on the CE manufacturer side of a highly competitive business. CE companies are highly secretive about their innovations and solutions. If Philips finds a clever solution for their DTVs, it won't tell Mitsubishi how to do the same thing to save money. Adding two more manufacturers (Scientific-Atlanta and Motorola) to the set of 11 manufacturers now in the market of CableCARD Host manufacturers does nothing to spur innovation or foster consumer economics.

TiVo's concerns about the "multistream" CableCARD are disingenuous – Cable has provided TiVo exactly the dual tuner capability it requested – and more. Apparently, there have been concerns expressed to Commission staff by TiVo regarding the progress made by the cable industry in developing a "multistream" CableCARD, although the *ex parte* filings in this docket fail to reflect those concerns or presentations. Such a separate security module would be capable of sending more than one program stream through the CableCARD at the same time, thus permitting viewers with such a device to view two decrypted programs, or record one while watching another. It has been suggested that the cable industry has been lax in developing such a device.

In fact, the opposite is true. *First*, the need for a multistream CableCARD was not raised by any of the 14 television manufacturers who negotiated and signed the landmark Play and Play Agreement with cable operators in December, 2002. The subject simply did not come up since DVRs, let alone dual tuner DVRs, were not at the forefront of the subjects discussed. *Second*, there was no requirement for the cable industry to develop a multistream CableCARD included in the cable operator - CE manufacturer Memorandum of Understanding ("MOU") embodying all of the terms of the Plug and Play Agreement.

Third, the Commission was not asked to – nor did it – adopt any regulations requiring cable operators to develop a multistream CableCARD when it adopted rules in September, 2003 implementing the Plug and Play Agreement.

Finally, and perhaps most significant, TiVo, which now complains about the lack of progress in developing a multistream CableCARD, *did not ask for such a device in its comments* in the FCC rulemaking proceeding addressed to rules proposed by the Commission to implement the Plug and Play Agreement. Indeed, it was the *cable industry*, not TiVo, which first raised the possibility of development of a multistream CableCARD (then called a "POD"). As indicated in the following paragraph, the exchange of comments puts to rest the canard that the cable industry has been resisting efforts to develop a multistream CableCARD.

In comments filed March 20, 2003, regarding the "Plug & Play" agreement, TiVo raised a number of questions about terms of the proposed rules. It devoted one paragraph out of 13 pages to dual tuners, to wit:

> To effectively compete in the market against dual tuner integrated set-top boxes, CE Manufacturers *should be allowed to deploy devices with dual point of deployment ("POD") interfaces* and MSOs should have to supply the consumer with the appropriate number of PODs to activate dual tuner functionality, with no economic disadvantage versus MSO supplied set-tops. In addition, *TiVo would like the Commission to require that, when a definition for a dual tuner POD is available, the MOU would permit its use by CE Manufacturers.*[9]

In reply comments dated April 28, 2004, NCTA responded to TiVo's comments:

> TiVo requests that dual PODs be made available to a customer if required for the particular device that has dual tuning capabilities. T*here is no restriction on providing PODs in this manner*, although it would be prudent for TiVo to identify such requirements in production forecasts going to CableLabs. *In addition, CableLabs is currently developing a multi-stream POD with the capabilities for sending more than one program stream through the POD simultaneously. This might be another solution to TiVo's underlying interest,* which is presumably to permit viewers to watch one decrypted program while recording another.[10]

This exchange demonstrates that the cable industry was more than responsive to TiVo's concern about "dual tuner" devices and, in fact, volunteered the information about the possibility of a multistream CableCARD. And the cable industry has followed up on its commitments. As TiVo knows, the dual tuner functionality that it requested can be achieved by using two CableCARDs and two CableCARD interfaces. CableLabs has had discussions with TiVo about these and other technical issues. And, as CEA notes, the specification for the multistream CableCARD, which was conceived by the cable industry, has been published and further work on it proceeds apace.

The Separate Security Requirement will slow the digital transition. NCTA has previously made the point that the Separate Security Requirement would impede the digital transition. If a cable operator is able to convert its system to all-digital, cable operators will need to be able to deploy digital-to-analog converters to sustain the many legacy analog devices that remain in customers' homes. Long after high-definition TV sets become commonplace in consumers' homes, consumers will still have multiple TVs and VCRs that are designed only to receive analog inputs, and every such device will require a converter of some sort. To add a CableCARD interface to every converter that needs to connect to every analog device in the home will represent a serious impediment to the discontinuance of analog transmission, to the

9 *See* Comments of TiVo, Inc., CS Docket No. 97-80; PP Docket No. 00-567, filed March 20, 2004, at 6-7 (emphasis added).

10 *See* Reply Comments of NCTA, CS Docket No. 97-80; PP Docket No. 00-67, filed April 28, 2004, at 42 (emphasis added).

recapture of bandwidth used for analog transmission, and to the deployment of the new services that such recapture could facilitate.

Tellingly, CE does not take issue with this analysis, but seeks to obfuscate it. CE points to the promise of downloadable security as a better solution than "hardwired" integrated security. The common denominator of integrated and downloadable security is that *neither* includes the unnecessary cost of a CableCARD interface. Cable operators and CableLabs are working diligently to develop a downloadable security solution that would bring cost savings to both operator-supplied equipment and devices built for retail. The current effort holds promise but the work on it will not be complete before the Separate Security Requirement is to go into effect and that work could be delayed if that rule were to go into effect as scheduled. Indeed, under a strict interpretation of the Separate Security Requirement, a device with downloadable security could be prohibited by the rule.

Implementation of the Separate Security Requirement will not facilitate plug-and-play negotiations for two-way products. CE acknowledges that the Separate Security Requirement is severable from the two-way negotiations. As CE says, "The negotiations seeking a framework for competitive interactive devices are not stymied by debates over separable security. They are complex in their own right because they address issues that were not encountered during the 'Phase I' process." As the lead negotiators for the cable and CE industries have discussed with the Media Bureau, the issues being negotiated are truly complex and involve mostly business, not technical, questions. They are being (and will be) dealt with independent of the Separate Security Requirement.

It does not follow that leaving the Separate Security Requirement in effect would create a "new level of certainty" in the negotiations or that they would "gain impetus." The simple fact is that those involved couldn't possibly be working any harder than we already are to try to bring the discussion to a successful conclusion.

In short, nothing in the recent CE filings strengthens the case for preserving the Separate Security Requirement. It continues to be a requirement that goes well beyond the level of government intrusion in the marketplace that is necessary to ensure the commercial availability of navigation devices, especially now with the cable industry's demonstrated support for CableCARD-enabled devices. To retain the Separate Security Requirement would constrict consumers' options and increase consumers' costs. It would disadvantage unfairly cable against ever-strengthening multichannel video competitors. It should be eliminated now.

If you have any further questions, we would be pleased to answer them.

Sincerely,

/s/ Neal M. Goldberg

Neal M. Goldberg

cc: Marlene H. Dortch, Secretary, for inclusion in CS Docket No. 97-80
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